

REMARKS/ARGUMENTS

This is a Response to the Office Action mailed October 20, 2006, in which a three (3) month Shortened Statutory Period for Response has been set, due to expire January 20, 2007. Twenty-eight (28) claims, including three (3) independent claims, were paid for in the application. Claims 1-23 were canceled and claims 24-51 were added by the Applicants in their July 21, 2006 response to the Office Action dated March 22, 2006. Claims 25-29, 40-41, and 44-47 are currently amended. No new matter has been added to the application. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090. Upon entry of the amendments herewith, claims 24-51 remain pending.

1. Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 25, 40, and 43 (and their dependent claims 26-32, 40-42 and 44-51) were rejected under 35 U.S.C. § 112, first paragraph, because “claims 25, 40 and 43 recited ‘modulating the power of the laser beam in accordance with the pulse train pattern to record third test signals.’ It is noted that Applicants’ Specification does not disclose recording, or reproduction, of ‘third test signals’.”

Applicants respectfully observe that claim 43 does not include the “third signal” limitation, but rather, claim 44 includes the “third signal” limitation. To advance prosecution of the instant case in a timely manner, Applicants assume that the Office Action intended to reject claim 44 (rather than claim 43 as noted in the Office Action).

Further, Applicants respectfully note that dependent claim 42 depends upon independent claim 39, which is not rejected under 35 U.S.C. § 112, first paragraph. Similarly, dependent claims 49-51 depend upon independent claim 43, which is not rejected under 35 U.S.C. § 112, first paragraph. To advance prosecution of the instant case in a timely manner, Applicants assume that the Office Action only intended to reject dependent claim 41 (rather than claims 41-42 as noted in the Office Action), and that the Office Action only intended to reject dependent claims 45-48 (rather than claims 44-51 as noted in the Office Action).

However, if the above-assumptions made by the Applicants are not correct, Applicants respectfully request clarification in a next Office Action, or alternatively, in a reissued Final Office Action that replaces the present Final Office Action.

Applicants initially observe that the subject matter of independent claims 24, 39 and 43, which have the recited first and second signals, is generally disclosed with respect to Figure 5. The subject matter of claims 25, 40 and 44 is generally disclosed with respect to Figure 6. Both embodiments pertaining to Figures 5 and 6 have two test signals. Accordingly, to place claims 25, 40 and 44 in condition for appeal, claims 25, 40 and 44 are amended herein to be in independent format and to remove the reference to the “third” signal.

Because claims 25, 40 and 44 are amended to remove the reference to the “third signal” the rejection under 35 U.S.C. § 112, first paragraph, has been overcome. Further, the rejection under 35 U.S.C. § 112, first paragraph, to those dependent claims that depend upon claims 25, 40 and 44 has been overcome. Accordingly, Applicants respectfully request withdrawal of the rejection.

## 2. Rejections Under 35 U.S.C. § 103(a)

In the Office Action, at paragraph 5, claims 24, 35, and 39 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Lee et al.* (U.S. Patent 6,404,712), hereinafter *Lee*, in view of *Koishi et al.* (U.S. Patent 6,611,481), hereinafter *Koishi*. It is well-established at law that, for a proper rejection of a claim under 35 U.S.C. § 103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements and/or features of the claim at issue. *See, e.g., In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

### a. Independent Claim 24

Applicants respectfully submit that claim 24 is allowable for at least the reason that the proposed combination of *Lee* in view of *Koishi* does not disclose, teach, or suggest at least the feature of “varying the level of the bottom power while fixing the recording power at a

*predetermined level; ... determining an optimum level of the bottom power based on the thus reproduced first test signals; varying the level of the recording power while fixing the bottom power at the optimum level; ... and determining an optimum level of the recording power based on the thus reproduced second test signals” as recited in claim 24 (emphasis added).*

Neither *Lee* or *Koishi* disclose, teach, or suggest

1) determining an optimum level of the bottom power by varying the bottom power while the recording power is fixed at a predetermined level (“varying the level of the bottom power while fixing the recording power at a predetermined level” and “determining an optimum level of the bottom power based on the thus reproduced first test signals”) and then,

2) determining the optimum level of the recording power while the bottom power is fixed at the determined optimal bottom power (“varying the level of the recording power while fixing the bottom power at the optimum level” and “determining an optimum level of the recording power based on the thus reproduced second test signals”).

The order of performing the two steps above is understood because fixing the bottom power at the determined optimal bottom power inherently requires that the optimal bottom power must already be determined.

*Lee* discloses at most “a method for optimally recording information on an optical recording medium, comprising the steps of: (a) reading the reference writing power recorded on the optical recording medium; (b) recording test data on the optical recording medium by changing the writing power within a range with respect to the reference writing power; (c) reproducing the recorded test data and detecting an optimal writing power from a property of the reproduced signal; and (d) recording the information indicative of whether to carry out said steps (a) through (c) in next data recording operations in a predetermined area of said optical recording medium.” (Claim 1).

Nowhere in *Lee* is there any disclosure of determining an optimum level of the bottom power by varying the bottom power while the recording power is fixed at a predetermined level. Further, there is no disclosure in *Lee* of *determining the optimum level of*

*the recording power while the bottom power is fixed at the determined optimum bottom power.* Thus, *Lee* fails to disclose, teach or suggest every element of the Applicants' claimed invention.

*Koishi* also fails to disclose, teach or suggest the above-recited features of claim 24. *Koishi* discloses at most that "first, the entire write power is increased by the factor of  $a$  as shown on the right-hand side of FIG. 2(a). After the amplitude of the write power has been determined this way, the widths of the first and second pulses are optimized" (column 13, lines 5-9). Then, "if the jitter or BER measured is found to be equal to or greater than its reference value A, then the method proceeds to Step 56. In Step 56, the write power is corrected in the above-described manner. For instance, the duty cycle of the multi-pulse train 2 is increased by one unit, which is equivalent to broadening the width of each pulse included in the multi-pulse train 2 by one nanosecond, for example. Alternatively, the lower bias power  $2 P_{b2}$  for the pulse-to-pulse interval of the multi-pulse train 2 may be raised by one unit, which is equivalent to increasing the bias power level  $2 P_{b2}$  by 1 mW" (column 13, lines 31-42). At most, the adjusting process of *Koishi* continues wherein "every time the duty cycle or lower bias power is corrected, the resultant jitter or BER is measured and compared to its reference B at each of the points" (column 14, lines 19-22).

Two distinctions between *Koishi* and claim 24 are evident. First, the method of *Koishi* stops after determining the optimum level of the bottom power by varying the bottom power while the recording power is fixed at a predetermined level. Thus, *Koishi* does not continue to a subsequent step of determining the optimum level of the recording power while the bottom power is fixed. Second, *Koishi* does not disclose determining the optimum level of the recording power while the bottom power is fixed at the determined optimal bottom power. Thus, *Koishi* fails to disclose, teach, or suggest every element of the Applicants' claimed invention.

Even if *Lee* is modified by *Koishi* as proposed, such a modified *Lee* system or method would be limited to merely adjusting the bottom power while the recording power is fixed at a predetermined level. The modified *Lee* system or method would not continue to a subsequent step of determining the optimum level of the recording power while the bottom power is fixed (because *Koishi* fails to disclose this process). And a modified *Lee* system or

method would not determine the optimum level of the recording power while the bottom power is fixed at the determined optimal bottom power (because *Koishi* fails to disclose this feature).

Accordingly, the proposed combination of *Lee* in view of *Koishi* does not disclose at least the above-recited limitations of claim 24. Therefore, a *prima facie* case establishing an obviousness rejection by *Lee* in view of *Koishi* has not been made. Thus, claim 24 is not obvious under the proposed combination of *Lee* in view of *Koishi*, and the rejection should be withdrawn.

b. Independent Claim 39

Applicants respectfully submit that claim 39 is allowable for at least the reason that the proposed combination of *Lee* in view of *Koishi* does not disclose, teach, or suggest at least the feature of a “laser beam power modulation pattern determining means being constituted so as to: vary the level of the bottom power while fixing the recording power at a predetermined level; ... determine an optimum level of the bottom power based on amplitudes of the thus reproduced first test signals; vary the level of the recording power while fixing the bottom power at the optimum level; ... and determine an optimum level of the recording power based on at least one of jitter and error rates of the thus reproduced second test signals” as recited in claim 39.

As noted in the above-argument for allowability of claim 24, nowhere in *Lee* is there any disclosure of determining an ***optimum level of the bottom power*** by varying the bottom power while the recording power is fixed at a predetermined level. Further, there is no disclosure in *Lee* of *determining* the *optimum level of the recording power* while the *bottom power is fixed at the determined optimum bottom power*. Thus, *Lee* fails to disclose, teach or suggest every element of the Applicants’ claimed invention.

As noted in the above-argument for allowability of claim 24, *Koishi* does not continue to the subsequent step of determining the optimum level of the recording power while the bottom power is fixed. *Koishi* also does not disclose determining the optimum level of the recording power while the bottom power is fixed at the determined optimal bottom power. Thus, *Koishi* fails to disclose, teach, or suggest every element of the Applicants’ claimed invention.

Therefore, even if *Lee* is modified by *Koishi* as proposed, such a modified *Lee* system or method would be limited to merely adjusting the bottom power while the recording

power is fixed at a predetermined level. The modified Lee system or method would not continue to a subsequent step of determining the optimum level of the recording power while the bottom power is fixed (because *Koishi* fails to disclose this process). A modified *Lee* system or method would also not determine the optimum level of the recording power while the bottom power is fixed at the determined optimal bottom power (because *Koishi* fails to disclose this feature).

Accordingly, the proposed combination of *Lee* in view of *Koishi* does not disclose at least the above-recited limitations of claim 39. Therefore, a *prima facie* case establishing an obviousness rejection by *Lee* in view of *Koishi* has not been made. Thus, claim 39 is not obvious under the proposed combination of *Lee* in view of *Koishi*, and the rejection should be withdrawn.

c. Independent Claim 43

Applicants respectfully observe that the Office Action does not expressly reject claim 43 under 35 U.S.C. § 103(a) based upon the proposed combination of *Lee* in view of *Koishi*. Nor is claim 43 expressly rejected under 35 U.S.C. § 102 or under 35 U.S.C. § 103 using other art of record. However, to advance prosecution of the instant case in a timely manner, Applicants provide the following observations with respect to claim 43 and the proposed combination of *Lee* in view of *Koishi*.

Applicants respectfully submit that the proposed combination of *Lee* in view of *Koishi* does not disclose, teach, or suggest at least the feature wherein “modulation pattern setting data are produced by: determining pulse train patterns by varying the level of the bottom power while fixing the recording power at a predetermined level ... determining an optimum level of the bottom power based on the thus reproduced first test signals; varying the level of the recording power while fixing the bottom power at the optimum level; ... and determining an optimum level of the recording power based on the thus reproduced second test signals” as recited in claim 43.

As noted in the above-argument for allowability of claim 24, nowhere in *Lee* is there any disclosure of determining an ***optimum level of the bottom power*** by varying the bottom power while the recording power is fixed at a predetermined level. Further, there is no disclosure in *Lee* of *determining the optimum level of the recording power while* the bottom

*power is fixed at the determined optimum bottom power.* Thus, *Lee* fails to disclose, teach or suggest every element of the Applicants' claimed invention.

As noted in the above-argument for allowability of claim 24, *Koishi* does not continue to the subsequent step of determining the optimum level of the recording power while the bottom power is fixed. And, *Koishi* does not disclose determining the optimum level of the recording power while the bottom power is fixed at the determined optimal bottom power. Thus, *Koishi* fails to disclose, teach, or suggest every element of the Applicants' claimed invention.

Accordingly, even if *Lee* is modified by *Koishi* as proposed, such a modified *Lee* system or method would be limited to merely adjusting the bottom power while the recording power is fixed at a predetermined level. The modified *Lee* system or method would not continue to a subsequent step of determining the optimum level of the recording power while the bottom power is fixed (because *Koishi* fails to disclose this process). The modified *Lee* system or method would also not determine the optimum level of the recording power while the bottom power is fixed at the determined optimal bottom power (because *Koishi* fails to disclose this feature).

Accordingly, the proposed combination of *Lee* in view of *Koishi* does not disclose at least the above-recited limitations of claim 43. Therefore, a *prima facie* case establishing an obviousness rejection by *Lee* in view of *Koishi* has not been made. Thus, claim 43 is not obvious under proposed combination of *Lee* in view of *Koishi*, and the rejection should be withdrawn.

d. Dependent Claim 35

Because independent claim 24 is allowable over the cited art of record, dependent claim 35 (which depends from independent claim 24) is allowable as a matter of law for at least the reason that the dependent claim 35 contains all features/elements of independent claim 24. *See, e.g., In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Accordingly, the rejection to the claim should be withdrawn.

3. Rejections Under 35 U.S.C. § 103(a)

In the Office Action, at paragraph 8, claims 33, 34, and 42 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Lee* in view of *Koishi* and further in view of *Finkelstein et al.* (U.S. Patent 5, 185,733), hereinafter *Finkelstein*. Claim 36 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Lee* in view of *Koishi* and further in view of *Hintz* (U.S. Patent 5,458,941). Claims 37 and 38 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Lee* in view of *Koishi* in view of *Hintz* and further in view of *Yasuda et al.* (U.S. Patent 6,511,788).

Because independent claim 24 is allowable over the cited art of record, dependent claims 33-34 and 36-38 (which depend from independent claim 24) are allowable as a matter of law for at least the reason that the dependent claims 33-34 and 36-38 contain all features/elements of independent claim 24. Similarly, because independent claim 39 is allowable over the cited art of record, dependent claim 42 (which depends from independent claim 39) is allowable as a matter of law for at least the reason that the dependent claim 42 contains all features/elements of independent claim 39. Accordingly, the rejection to these claims should be withdrawn.

Applicants respectfully observe that the Office Action does not expressly reject claims 49-51 under 35 U.S.C. § 103(a) based upon the proposed combination of *Lee* in view of *Koishi* or other secondary references. Accordingly, in the absence of an express rejection, these claims would be allowable. Applicants further observe that because independent claim 43 is allowable over the cited art of record, dependent claims 49-51 (which depend from independent claim 43) are allowable as a matter of law for at least the reason that the dependent claims 49-51 contain all features/elements of independent claim 43.

4. Amended Independent Claims 25, 40 and 44, and Dependent Claims 26-32, 41, and 45-48

As noted above, claims 25, 40 and 44 are amended to overcome the rejection under 35 U.S.C. § 112, first paragraph, by amending the claims into independent claim format and by removing the reference to the “third signal.” Applicants respectfully observe that the Office Action does not expressly reject claims 25, 40 and 44, nor their respective dependent claims, under 35 U.S.C. § 103(a) based upon the proposed combination of *Lee* in view of *Koishi*



or other secondary references. Nor are claims 25, 40 and 44 (or their respective dependent claims) expressly rejected under 35 U.S.C. § 102. More precisely, claims 25, 40, and 44 are allowable for at least the reason that none of the art of record discloses, teaches or suggests varying the level of the recording power while fixing the level of the bottom power at a level substantially equal to the level of the reproducing power as recited in claims 25, 40, and 44. Further, their respective dependent claims 26-32, 40, and 45-48 are allowable because these dependent claims contain all features/elements of their respective independent base claim.

5. Conclusion

In light of the above amendments and remarks, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that all pending claims 24-51 are allowable. Applicants, therefore, respectfully request that the Examiner reconsider this application and timely allow all pending claims. The Examiner is encouraged to contact Mr. Armentrout by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired. If the Examiner notes any informalities in the claims, she is further encouraged to contact Mr. Armentrout by telephone to expediently correct such informalities.

Respectfully submitted,

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